

In the claims:

Please amend the claims as follows:

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Claim 1 (Currently Amended): A method of driving a semiconductor display device comprising a plurality of pixels, each containing a pixel TFT and a pixel electrode; an opposing electrode; and a liquid crystal formed between the plurality of pixel electrodes electrode and the opposing electrode;

wherein display signals are inputted to the plurality of pixel electrodes electrode through the plurality of pixel TFTs TFT,

wherein each of the display signals inputted to the plurality of pixel electrodes have electrode has one of a positive polarity or and a negative polarity, with the an electric potential of the opposing electrode as a standard, and

wherein display signals input to pixel electrodes in a vertical line have a same polarity, and

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wherein the pixel electrodes into which display signals having the positive polarity are inputted, and the pixel electrodes into which display signals having the negative polarity are inputted differ every frame period pixels to which display signals having a particular polarity are inputted are changed irregularly in a certain fixed period.

Claim 2 (Currently Amended): A method of driving a semiconductor display device comprising a plurality of pixels, each containing a pixel TFT and a pixel electrode; a plurality of source signal lines; a plurality of gate signal lines; an opposing electrode; and a liquid crystal formed between the plurality of pixel electrodes electrode and the opposing electrode;

wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines,

wherein display signals are inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes electrode through the plurality of pixel TFTs TFT,

wherein each of the display signals inputted to the plurality of pixel electrodes have electrode has one of a positive polarity or and a negative polarity, with the an electric potential of the opposing electrode as a standard, and

wherein display signals input to pixel electrodes in a vertical line have a same polarity, and

wherein the pixel electrodes into which display signals having the positive polarity are inputted, and the pixel electrodes into which display signals having the negative polarity are inputted differ every frame period pixels to which display signals having a particular polarity are inputted are changed irregularly in a certain fixed period, to an extent that flicker become difficult to observe.

Claim 3 (Currently Amended): A method of driving a semiconductor display device comprising a plurality of pixels, each containing a pixel TFT and a pixel electrode; a plurality of source signal lines; a plurality of gate signal lines; an opposing electrode; and a liquid crystal formed between the plurality of pixel electrodes electrode and the opposing electrode;

wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines,

wherein display signals are inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes electrode through the plurality of pixel TFTs TFT,

wherein each of the display signals inputted to the plurality of pixel electrodes have electrode has one of a positive polarity or and a negative polarity, with the an electric potential of the opposing electrode as a standard,

wherein the display signals inputted to each of the plurality of source signal lines always have the same polarity, with the electric potential of the opposing electrode taken as a standard, within each frame period display signals input to pixel electrodes in a vertical line have a same polarity, and

wherein the pixel electrodes into which display signals having the positive polarity are inputted, and the pixel electrodes into which display signals having the negative polarity are inputted differ every frame period pixels to which display signals having a particular polarity are inputted are changed irregularly in a certain fixed period, to an extent that vertical striping become difficult to observe.

Claim 4 (Currently Amended): A method of driving a semiconductor display device comprising a plurality of pixels, each containing a pixel TFT and a pixel electrode; a plurality of

~~source signal lines; a plurality of gate signal lines; an opposing electrode; and a liquid crystal formed between the plurality of pixel electrodes electrode and the opposing electrode;~~

~~wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines;~~

~~wherein display signals are inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes electrode through the plurality of pixel TFTs TFT,~~

~~wherein each of the display signals inputted to the plurality of pixel electrodes have electrode has one of a positive polarity or and a negative polarity, with the an electric potential of the opposing electrode as a standard,~~

~~wherein the polarity of all of the display signals inputted to the plurality of source signal lines is the same polarity, with the electric potential of the opposing electrode taken as a standard, within one line period display signals input to pixel electrodes in a vertical line have a same polarity, and~~

~~wherein the pixel electrodes into which display signals having the positive polarity are inputted, and the pixel electrodes into which display signals having the negative polarity are inputted differ every frame period pixels to which display signals having a particular polarity are inputted are changed randomly in a certain fixed period.~~

Claim 5 (Canceled)

Claim 6 (Currently Amended): A method of driving a semiconductor display device according to claim 1, wherein ~~the polarity of the display signals inputted to all of the pixel electrodes may be inverted~~ a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.

Claim 7 (Currently Amended): A semiconductor display device comprising:
a source signal line driver circuit;
a gate signal line driver circuit;
a plurality of source signal lines;
a plurality of gate signal lines;

a pixel portion; and
a display signal generation portion,
wherein the pixel portion has a plurality of pixels, each containing a pixel TFT and a pixel electrode,

wherein the display signal generation portion has: a control portion; a polarity data signal generation portion; an alternating current signal generation portion; a display signal selection portion; a + side display signal generation portion; and a - side display signal generation portion,
wherein display signals input to pixel electrodes in a vertical line have a same polarity, and
wherein pixels to which display signals having a particular polarity are input are changed
irregularly in a certain fixed period

~~wherein the control portion controls driving of the polarity data signal generation portion, the alternating current signal generation portion, the source signal line driver circuit, and the gate signal line driver circuit,~~

~~wherein the polarity data signal generation portion inputs a polarity data signal having polarity data to the alternating current signal generation portion,~~

~~wherein the alternating current signal generation portion generates an alternating current signal in accordance with the polarity data signal and inputs the alternating current signal to the display signal selection portion,~~

~~wherein an image signal having positive polarity and an image signal having negative polarity are generated in the + side display signal generation portion and the - side display signal generation portion, respectively, and are inputted to the display signal selection portion,~~

~~wherein display signals are generated in the display signal selection portion from the image signal having positive polarity, the image signal having negative polarity, and the alternating current signal, and are inputted to the source signal line driver circuit,~~

~~wherein the display signals inputted to the source signal line driver circuit are sampled and inputted to the plurality of source signal lines,~~

~~wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines,~~

~~wherein the display signals inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes through the plurality of pixel TFTs,~~

~~wherein the display signals inputted to the plurality of pixel electrodes have positive or negative polarities, with the electric potential of the opposing electrode taken as a standard, and wherein the pixel electrodes to which the display signals having positive polarity are inputted, and the pixel electrodes to which the display signals having negative polarity are inputted differ every frame period.~~

Claim 8 (Currently Amended): A semiconductor display device comprising:

a source signal line driver circuit;

a gate signal line driver circuit;

a plurality of source signal lines;

a plurality of gate signal lines;

a pixel portion; and

~~a gray scale voltage control portion; and~~

~~a gray scale voltage power source;~~

a display signal generation portion,

~~wherein the source signal line driver circuit has a D/A converter circuit,~~

wherein the pixel portion has a plurality of pixels, each containing a pixel TFT and a pixel electrode,

wherein the display signal generation portion has: a control portion; a polarity data signal generation portion; an alternating current signal generation portion; a display signal selection portion; a + side display signal generation portion; and a - side display signal generation portion,

wherein display signals input to pixel electrodes in a vertical line have a same polarity, and

wherein pixels to which display signals having a particular polarity are input are changed irregularly in a certain fixed period, to an extent that flicker become difficult to observe

~~wherein the gray scale voltage control portion has a control portion, a polarity data signal generation portion, and an alternating current signal generation portion,~~

~~wherein the control portion controls driving of the polarity data signal generation portion, the alternating current signal generation portion, the source signal line driver circuit, and the gate signal line driver circuit,~~

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~~wherein the polarity data signal generation portion inputs a polarity data signal having polarity data to the alternating current signal generation portion,~~

~~wherein the alternating current signal generation portion generates an alternating current signal in accordance with the polarity data signal and inputs the alternating current signal to the gray scale voltage power source,~~

~~wherein a gray scale voltage inputted to the D/A converter circuit from the gray scale voltage power source is controlled in accordance with the alternating current signal,~~

~~wherein display signals outputted from the D/A converter circuit are sampled and inputted to the plurality of source signal lines,~~

~~wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines,~~

~~wherein the display signals inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes through the plurality of pixel TFTs,~~

~~wherein the display signals inputted to the plurality of pixel electrodes have positive or negative polarities, with the electric potential of the opposing electrode taken as a standard, and~~

~~wherein the pixel electrodes to which the display signals having positive polarity are inputted, and the pixel electrodes to which the display signals having negative polarity are inputted differ every frame period.~~

Claim X
Claim 9 (Amended): A semiconductor display device comprising:

a source signal line driver circuit;

a gate signal line driver circuit;

a plurality of source signal lines;

a plurality of gate signal lines;

a pixel portion; and

a display signal generation portion;

wherein the pixel portion has a plurality of pixels, each containing a pixel TFT and a pixel electrode,

wherein the display signal generation portion has: a control portion; ~~an address counter~~; a polarity data signal generation portion; ~~a memory~~; an alternating current signal generation portion; a

display signal selection portion; a + side display signal generation portion; and a - side display signal generation portion,

wherein display signals input to pixel electrodes in a vertical line have a same polarity, and
wherein pixels to which display signals having a particular polarity are input are changed
irregularly in a certain fixed period, to an extent that vertical striping become difficult to observe
wherein the control portion controls driving of the address counter, the alternating current
signal generation portion, the source signal line driver circuit, and the gate signal line driver circuit,
wherein an address of the memory is specified in accordance with a counter signal outputted
from the address counter,

~~wherein the polarity data signal generation portion inputs polarity data stored in the address~~
~~to the alternating current signal generation portion as a polarity data signal,~~

~~wherein the alternating current signal generation portion generates an alternating current~~
~~signal in accordance with the polarity data signal and inputs the alternating current signal to the~~
~~display signal selection portion,~~

~~wherein an image signal having positive polarity and an image signal having negative~~
~~polarity are generated in the + side display signal generation portion and the - side display signal~~
~~generation portion, respectively, and are input to the display signal selection portion,~~

~~wherein display signals are generated in the display signal selection portion from the image~~
~~signal having positive polarity, the image signal having negative polarity, and the alternating current~~
~~signal, and are inputted to the source signal line driver circuit,~~

~~wherein the display signals inputted to the source signal line driver circuit are sampled and~~
~~inputted to the plurality of source signal lines,~~

~~wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection~~
~~signal inputted to the plurality of gate signal lines,~~

~~wherein the display signals inputted to the plurality of source signal lines are inputted to the~~
~~plurality of pixel electrodes through the plurality of pixel TFTs,~~

~~wherein the display signals inputted to the plurality of pixel electrodes have positive or~~
~~negative polarities, with the electric potential of the opposing electrode taken as a standard, and~~

~~wherein the pixel electrodes to which the display signals having positive polarity are inputted, and the pixel electrodes to which the display signals having negative polarity are inputted differ every frame period.~~

Claim 10 (Currently Amended): A semiconductor display device comprising:

a source signal line driver circuit;
a gate signal line driver circuit;
a plurality of source signal lines;
a plurality of gate signal lines;
a pixel portion; and
~~a gray scale voltage control portion; and~~
~~a gray scale voltage power source;~~
a display signal generation portion,

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~~wherein the source signal line driver circuit has a D/A converter circuit,~~
wherein the pixel portion has a plurality of pixels, each containing a pixel TFT and a pixel electrode,

wherein the display signal generation portion has: a control portion; a polarity data signal generation portion; an alternating current signal generation portion; a display signal selection portion; a + side display signal generation portion; and a - side display signal generation portion,

wherein display signals input to pixel electrodes in a vertical line have a same polarity, and
wherein pixels to which display signals having a particular polarity are input are changed randomly in a certain fixed period

~~wherein the gray scale voltage control portion has a control portion, an address counter, a polarity data signal generation portion, a memory, and an alternating current signal generation portion;~~

~~wherein the control portion controls driving of the address counter, the alternating current signal generation portion, the source signal line driver circuit, and the gate signal line driver circuit,~~

~~wherein an address of the memory is specified in accordance with a counter signal outputted from the address counter,~~

~~wherein the polarity data signal generation portion inputs polarity data stored in the address to the alternating current signal generation portion as a polarity data signal,~~

~~wherein the alternating current signal generation portion generates an alternating current signal in accordance with the polarity data signal and inputs the alternating current signal to the gray scale voltage power source,~~

~~wherein a gray scale voltage inputted to the D/A converter circuit from the gray scale voltage power source is controlled in accordance with the alternating current signal,~~

~~wherein display signals outputted from the D/A converter circuit are sampled and inputted to the plurality of source signal lines,~~

~~wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines,~~

~~wherein the display signals inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes through the plurality of pixel TFTs,~~

~~wherein the display signals inputted to the plurality of pixel electrodes have positive or negative polarities, with the electric potential of the opposing electrode taken as a standard, and~~

~~wherein the pixel electrodes to which the display signals having positive polarity are inputted, and the pixel electrodes to which the display signals having negative polarity are inputted differ every frame period.~~

Claim 11 (Currently Amended): A semiconductor display device according to claim 7, ~~wherein the polarity data comprises information regarding the polarity of the display signals inputted to all of the pixels~~ a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.

Claim 12 (Currently Amended): A method of driving a semiconductor display device comprising a plurality of pixels, each containing a pixel TFT and a pixel electrode; a plurality of source signal lines; a plurality of gate signal lines; an opposing electrode; and a liquid crystal formed between the plurality of pixel electrodes electrode and the opposing electrode;

~~wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines,~~

wherein display signals are inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes electrode through the plurality of pixel TFTs TFT,

wherein each of the display signals inputted to the plurality of pixel electrodes have electrode has one of a positive polarity or and a negative polarity, with the an electric potential of the opposing electrode as a standard,

wherein display signals having the positive polarity are inputted to some of the plurality of the pixel electrodes, and display signals having the negative polarity are inputted to the other of the plurality of pixel electrodes in first one frame period display signals input to pixel electrodes in a vertical line have a same polarity, and

wherein only some of the plurality of the pixel electrodes have the inverse polarity in second one frame period pixels to which display signals having a particular polarity are input are changed randomly in a certain fixed period, to an extent that flicker become difficult to observe.

Claim 13 (Currently Amended): A semiconductor display device comprising:

a source signal line driver circuit;
a gate signal line driver circuit;
a plurality of source signal lines;
a plurality of gate signal lines;
a pixel portion; and
a display signal generation portion,

wherein the pixel portion has a plurality of pixels, each containing a pixel TFT and a pixel electrode,

wherein the display signal generation portion has: a control portion; a polarity data signal generation portion; an alternating current signal generation portion; a display signal selection portion; a + side display signal generation portion; and a - side display signal generation portion,

wherein display signals input to pixel electrodes in a vertical line have a same polarity, and
wherein pixels to which display signals having a particular polarity are input are changed randomly in a certain fixed period, to an extent that flicker become difficult to observe.

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wherein the control portion controls driving of the polarity data signal generation portion, the alternating current signal generation portion, the source signal line driver circuit, and the gate signal line driver circuit;

wherein the polarity data signal generation portion inputs a polarity data signal having polarity data to the alternating current signal generation portion;

wherein the alternating current signal generation portion generates an alternating current signal in accordance with the polarity data signal and inputs the alternating current signal to the display signal selection portion;

wherein an image signal having positive polarity and an image signal having negative polarity are generated in the + side display signal generation portion and the - side display signal generation portion, respectively, and are inputted to the display signal selection portion;

wherein display signals are generated in the display signal selection portion from the image signal having positive polarity, the image signal having negative polarity, and the alternating current signal, and are inputted to the source signal line driver circuit;

wherein the display signals inputted to the source signal line driver circuit are sampled and inputted to the plurality of source signal lines,

wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines;

wherein the display signals inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes through the plurality of pixel TFTs;

wherein the display signals inputted to the plurality of pixel electrodes have positive or negative polarities, with the electric potential of the opposing electrode taken as a standard;

wherein display signals having the positive polarity are inputted to some of the plurality of the pixel electrodes, and display signals having the negative polarity are inputted to the other of the plurality of pixel electrodes in first one frame period, and

wherein only some of the plurality of the pixel electrodes have the inverse polarity in second one frame period.

Claim 14 (Currently Amended): A semiconductor display device comprising:
a source signal line driver circuit;

a gate signal line driver circuit;
a plurality of source signal lines;
a plurality of gate signal lines;
a pixel portion; and
~~a gray scale voltage control portion; and~~
~~a gray scale voltage power source;]~~
a display signal generation portion,
~~wherein the source signal line driver circuit has a D/A converter circuit,~~
wherein the pixel portion has a plurality of pixels, each containing a pixel TFT and a pixel electrode,

wherein the display signal generation portion has: a control portion; a polarity data signal generation portion; an alternating current signal generation portion; a display signal selection portion; a + side display signal generation portion; and a - side display signal generation portion,
wherein display signals input to pixel electrodes in a vertical line have a same polarity, and
wherein pixels to which display signals having a particular polarity are input are changed irregularly in a certain fixed period, to an extent that vertical striping become difficult to observe
~~wherein the gray scale voltage control portion has a control portion, a polarity data signal generation portion, and an alternating current signal generation portion,~~
~~wherein the control portion controls driving of the polarity data signal generation portion, the alternating current signal generation portion, the source signal line driver circuit, and the gate signal line driver circuit,~~

~~wherein the polarity data signal generation portion inputs a polarity data signal having polarity data to the alternating current signal generation portion,~~

~~wherein the alternating current signal generation portion generates an alternating current signal in accordance with the polarity data signal and inputs the alternating current signal to the gray scale voltage power source,~~

~~wherein a gray scale voltage inputted to the D/A converter circuit from the gray scale voltage power source is controlled in accordance with the alternating current signal,~~

~~wherein display signals outputted from the D/A converter circuit are sampled and inputted to the plurality of source signal lines,~~

~~wherein switching of the plurality of pixel TFTs is controlled in accordance with a selection signal inputted to the plurality of gate signal lines,~~

~~wherein the display signals inputted to the plurality of source signal lines are inputted to the plurality of pixel electrodes through the plurality of pixel TFTs,~~

~~wherein the display signals inputted to the plurality of pixel electrodes have positive or negative polarities, with the electric potential of the opposing electrode taken as a standard,~~

~~wherein display signals having the positive polarity are inputted to some of the plurality of the pixel electrodes, and display signals having the negative polarity are inputted to the other of the plurality of pixel electrodes in first one frame period, and~~

~~wherein only some of the plurality of the pixel electrodes have the inverse polarity in second one frame period.~~

Claim 15 (Currently Amended): A method of driving a semiconductor display device according to claim 2 12, wherein ~~pixel electrodes to which the display signals having positive polarity are inputted, and pixel electrodes to which the display signals having negative polarity are inputted may differ randomly every frame period~~ a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.

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Claim 16 (Canceled)

Claim 17 (Canceled)

Claim 18 (Currently Amended): A method of driving a semiconductor display device according to claim 2, wherein ~~the polarity of the display signals inputted to all of the pixel electrodes may be inverted~~ a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.

Claim 19 (Currently Amended): A method of driving a semiconductor display device according to claim 3, wherein ~~the polarity of the display signals inputted to all of the pixel~~

~~electrodes may be inverted a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.~~

Claim 20 (Currently Amended): A method of driving a semiconductor display device according to claim 4, wherein ~~the polarity of the display signals inputted to all of the pixel electrodes may be inverted a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.~~

Claim 21 (Currently Amended): A semiconductor display device according to claim 8, wherein ~~the polarity data comprises information regarding the polarity of the display signals inputted to all of the pixels a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.~~

Claim 22 (Currently Amended): A semiconductor display device according to claim 9, wherein ~~the polarity data comprises information regarding the polarity of the display signals inputted to all of the pixels a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.~~

Claim 23 (Currently Amended): A semiconductor display device according to claim 10, wherein ~~the polarity data comprises information regarding the polarity of the display signals inputted to all of the pixels a polarity of display signals input to only some of the pixel electrodes changes in two adjacent frame periods.~~

Claim 24 (Newly Added): A method of driving a semiconductor display device comprising a plurality of pixels, each containing a pixel TFT and a pixel electrode; an opposing electrode; and a liquid crystal formed between the pixel electrode and the opposing electrode;

wherein display signals are input to the pixel electrode through the pixel TFT, wherein each of the display signals input to the pixel electrode has one of a positive polarity and a negative polarity, with an electric potential of the opposing electrode as a standard,

wherein display signals input to pixel electrodes in a vertical line have a same polarity, and

wherein pixels to which display signals having a particular polarity are inputted are changed randomly in a certain fixed period, to an extent that vertical striping become difficult to observe.

Claim 25 (Newly Added): A method of driving a semiconductor display device according to claim 24, wherein only some of pixel electrodes have an inverse polarity in two adjacent frame periods.

Claim 26 (Newly Added): A semiconductor display device according to claim 13, wherein a polarity of display signals input to only some of pixel electrodes have an inverse polarity in two adjacent frame periods.

Claim 27 (Newly Added): A semiconductor display device according to claim 14, wherein a polarity of display signals input to only some of pixel electrodes have an inverse polarity in two adjacent frame periods.

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